

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference

see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2004/005541

International filing date (day/month/year)

19.04.2004

Priority date (day/month/year)

09.07.2003

International Patent Classification (IPC) or both national classification and IPC

H02K21/46, H02K1/27, F04B39/02

Applicant

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2004/005541

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2004/005541

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	-
	No: Claims	1-16
Inventive step (IS)	Yes: Claims	-
	No: Claims	1-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	-

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/JP2004/005541

- 1). Following documents are referred to:
D1: EP1246348
D2: US4628443
D3: US3564273
D4: EP1227568
- 2). The independent device claims 1 and 9 both refer to the operation of a synchronous induction motor with an auxiliary winding and a capacitor, and since the electrical machine is part of the hermetic compressor, they do not describe inter-related products or alternative solutions on how to start and run the electrical machine. Thus it is recommended to draft a single independent device claim followed by appropriate dependent claims to fulfill Art. 6 PCT.
- 3). D1, which is considered as the closest prior art, discloses a
 - synchronous induction motor in fig. 3, par. 53, comprising:
 - a stator (4), par. 53, having a main winding (7A) and an auxiliary winding (7B), par. 70;
 - a rotor (5), par. 72, having a yoke (5A), a permanent magnet embedded in the yoke and a secondary conductor (5B) provided in a vicinity of a periphery of the yoke (5A), par. 71, and
 - a starter (61) in fig. 54, having a starting capacitor (48) connected in series with the auxiliary winding (7B), and a switching unit (61B) that closes a circuit to the auxiliary winding from the starting capacitor (48) when the synchronous induction motor is started, par. 162.
- 4). D1 discloses all technical features of claim 1, which is therefore not new (Art. 33(2) PCT).
- 5). D1 also uses a bimetal switch (64) in fig. 56, par. 166, a PTC thermistor (46), par. 142, a relay (45), par. 140, while triacs are common in phase voltage control, so that claims 2-8 are not new (Art. 33(2) PCT).
- 6). D1 also describes a compressor drive with a synchronous induction motor and starting capacitor, so that claim 9 is not new (Art. 33(2) PCT).
- 7). With respect to the remarks under item 5, claims 10-16 are not new (Art. 33(2) PCT).

- 8). It is not at present apparent which part of the application could serve as a basis for a new claim satisfying Art. 33(3) PCT. Should the applicant nevertheless regard some particular matter as suitable, an independent claim should be filed taking account Rule 6 PCT. The applicant should also indicate in the letter of reply the difference of the subject-matter of the new claim vis-à-vis the state of the art and the significance thereof.
- 9). If filing amended claims the applicant should at the same time bring the description into conformity with the amended claims. Care should be taken during revision, especially of the introductory portion and any statements of problem or advantage, not to add subject-matter which extends beyond the content of the application as originally filed (Article 34(2)(b) PCT).
- 10). In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8(a) PCT).

If the applicant regards it as appropriate these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.

- 11). The applicant is requested to file amendments by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT.

Moreover, the applicant's attention is drawn to the fact that, as a consequence of Rule 66.8(a) PCT the examiner is not permitted to carry out any amendments under the PCT procedure, however minor these may be.

- 12). Document D1 should be mentioned in the description according to Rule 5.1(a)(ii) PCT.
- 13). The features of claims 1-16 are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).